	Туре	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	1	inspect\$4 adj15 ((surface near treat\$4) adj3 (golf near ball))	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM	2001/12/01 16:00
2	BRS	L2	1	inspect\$4 adj15 ((surface near treat\$4) adj1 (golf near ball))	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM	2001/12/01 15:46
3	BRS	Г3	17	((surface near treat\$4) adjl (golf near ball))	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM TDB	2001/12/01 15:56
4	BRS	L4	1	"5286532".PN.		2001/12/01 15:48
5	BRS	L5	30	((surface near treat\$4) adj6 (golf near ball))		2001/12/01 15:57
6	BRS	L6		inspect\$4 adj15 (treat\$4 near4 ball)	:	2001/12/01 16:01

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	Туре	L #	Hits	Search Text	DBs	Time Stamp
7	BRS	<b>L</b> 7	0	inspect\$4 adj15 (treat\$4 near ball)		2001/12/01 16:01
8	BRS	L9	6	8 and treat\$4	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM TDB	2001/12/01 16:02
9	BRS	L8	45	inspect\$4 adj15 (surface near ball)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM	2001/12/01 16:08
10	BRS	L10	1	"5777244".PN.	USPAT :	2001/12/01 16:11
11	BRS	L11	1	"5703687".PN.		2001/12/01 16:11
12	BRS	L12	1	"5568250".PN.	USPAT	2001/12/01 16:11
13	BRS	L13	1	"5517027".PN.	115041 :	2001/12/01 16:12

	U	1	Document ID	Issue Date	Pages
1			US 20010012389 A1		19
2		; I I	US 20010006998 A1		8
3			US 6315915 B1	20011113	10
4			US 5985370 A	19991116	5
5			US 5466424 A	19951114	14
6			US 5316739 A	19940531	34
7			US 5286532 A	19940215	18
8			US 5160536 A	19921103	5
9			JP 10165886 A	19980623	6
10			JP 06016844 A	19940125	5
11			JP 06016843 A	19940125	4
12			JP 04277533 A	19921002	5
13			US 5286532 A	19940215	18
14			US 5985370 A	19991116	5

	Title	Current OR	Current XRef
1	Apparatus and method for automated game ball inspection		
2	Golf ball materials and golf ball		
3	Treatment for facilitating bonding between golf ball layers and resultant golf balls	216/67	156/272.6 ; 473/371 ; 473/372 ; 473/373 ; 473/374 ; 473/377
4	Surface treatment of golf balls	427/387	427/322 ; 427/386 ; 427/393.5 ; 427/412.1 ; 427/430.1
5	Corona discharge surface treating method	422/186.05	427/322 ; 427/536 ; 427/539 ; 427/569 ; 473/385
6	Method and apparatus for surface treatment	422/186.05	422/186
7	Method for producing golf balls	427/536	427/539 ; 473/378
8	Printing ink for golf balls	106/31.37	106/31.69
9	SURFACE TREATMENT OF GOLF BALL		
10	APPARATUS FOR SURFACE TREATMENT OF GOLF BALL		
11	APPARATUS FOR SURFACE TREATMENT OF GOLF BALL		
12	SURFACE TREATMENT OF GOLF BALL		
13	Method for producing golf balls		
14	Surface treatment of golf ball - uses silane coupling agent to improve  durability, abrasion resistance and waterproof property		

	U	1	Document ID	Issue Date	Pages
15			US 5286532 A	19940215	18
16			JP 04277533 A	19921002	4
17			JP 59144465 A	19840818	6

	Title	Current OR	Current XRef
15	Golf ball prodn using atmospheric pressure plasma - utilising insulating		
	vessel contg three or more elongate inner and outer electrode pairs		
16	Treatment of golf ball surface before coating with paint - by using		
	hydrochloric acid soln. contg. metal hypochlorite to improve paint		
117	Low temp. plasma treatment of golf balls - to increase adhesiveness		
	to paint		

CLIPPEDIMAGE= JP406016844A

PAT-NO: JP406016844A

DOCUMENT-IDENTIFIER: JP 06016844 A

TITLE: APPARATUS FOR SURFACE TREATMENT OF GOLF BALL

PUBN-DATE: January 25, 1994

INVENTOR-INFORMATION:

NAME
OYACHI, TOMIO
TAKAHASHI, MINORU
IZUHARA, KOICHI
AKIYAMA, SETSUO

YOSHIKAWA, MASAHITO

ASSIGNEE-INFORMATION:

NAME BRIDGESTONE CORP COUNTRY N/A

APPL-NO: JP04216823

APPL-DATE: August 14, 1992

INT-CL\_(IPC): C08J007/00; A63B045/00

ABSTRACT:

PURPOSE: To provide an apparatus for surface treatment of a golf ball whereby

high shock peeling resistance can be imparted to the surface coating layer of a

golf ball, and the safety of the production process can be kept high.

CONSTITUTION: The apparatus consists of a vacuum vessel 2 provided with a gas

inlet valve 1, a high-frequency electric source 4 and an evacuation valve 5, a

guide rail holding golf balls and descending helically in the vacuum vessel,

and an electrode which is the guide rail itself.

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CLIPPEDIMAGE= JP409061364A

PAT-NO: JP409061364A

DOCUMENT-IDENTIFIER: JP 09061364 A

TITLE: METHOD FOR INSPECTING APPEARANCE OF GOLF BALL AND

APPEARANCE INSPECTING

DEVICE

PUBN-DATE: March 7, 1997

INVENTOR-INFORMATION:

NAME

KUMAGAI, HIROKI FUKAZAWA, FUMIO

ASSIGNEE-INFORMATION:

NAME

COUNTRY

BRIDGESTONE SPORTS CO LTD

N/A

APPL-NO: JP07243685

APPL-DATE: August 29, 1995

INT-CL\_(IPC): G01N021/88; A63B045/00 ; G01B011/30 ; G06T001/00 ;

G06T007/00

## ABSTRACT:

PROBLEM TO BE SOLVED: To surely detect a failure such as a flaw or dirt

generated on the surface of golf ball from an image taken by a camera by image  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 

processing.

SOLUTION: In the method of inspecting the appearance of a golf ball  ${\sf G}$  which

comprises photographing the golf ball surface with a camera 4 to provide a two

dimensional image, and detecting an appearance failure such as flaw, partial  $\ensuremath{\mathsf{I}}$ 

deformation or dirt generated on the surface of the golf ball  ${\sf G}$  from the

two-dimensional image, two prescribed ranges 9a, 9b on the golf ball surface

which are mutually point symmetric with the center point of the  $\operatorname{\mathsf{golf}}$  ball  $\operatorname{\mathsf{G}}$ 

between are photographed by the camera 4 to provide two two-dimensional images.

The resulting two-dimensional images are mutually superposed to determine the

difference in data of both the two-dimensional images, thereby,

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the common part of both the two-dimensional images is erased, and a failure part appearing as the non-common part of both the two-dimensional image is detected.

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